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U. S. DEPARTMENT OF AGRICULTURE

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A Message from the **ADMINISTRATOR**

DOES "atomic energy" mean "low cost electric power"?

We in REA have been getting a steady stream of questions about atomic energy and its economic feasibility. So far, nobody can say definitely that atomic energy will lead to cheaper power production than will present fuels.

REA is operating on the assumption that American genius will find the way to convert atomic energy into electricity at low cost. We want the rural electric cooperatives—and their farmer members—to benefit from this development when it comes.

We have been working with the Atomic Energy Commission for about a year to keep advised on progress in research and development, and to keep the AEC informed on our needs. We feel that our primary responsibility is to apply the results of research to the needs of rural electric systems rather than to engage in basic research and development. We have been assured by the AEC that its staff will give us the specialized technical help we need at no additional cost to REA or to the taxpayers. It appears wise, therefore, for us to rely on the AEC.

We are contacting borrowers which are planning construction of generation plants. If they are interested in the possibilities of nuclear power, we will help them get security clearance so that they can work with the AEC and us in getting the up-to-date information they need to make their decision.

As AEC's research goes forward, we will keep informed and we will take advantage of every development that gives assurance of a lower cost power source that will be dependable. There are still questions of service interruptions, site of plant locations and liability that have to be answered. But we are determined that the REA co-ops will be able to move into the atomic age as soon as it makes economic sense to do so.

Charles E. Weller
Administrator.

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5-Year Outlook

Borrowers List Building Plans, Loan Needs for 1956-60

REA's electric borrowers intend to construct new facilities at a cost of about \$202 million during the 1956 fiscal year. They expect to submit about \$156 million in loan applications in 1956 to finance construction in that and subsequent years.

These figures are based on information obtained in a survey of borrowers made by REA. In the first general survey of its kind, REA asked electric borrowers to indicate their construction plans and loan needs by years for the 1956-1960 period. About 85 percent of the borrowers responded.

The information has been adjusted to provide estimated data for all 991 active distribution and power-type borrowers. Present plans are to repeat the survey about July 1, 1955 to obtain the benefit of the borrowers' latest planning.

Other findings of the present survey include the following:

(1) Estimates for years after 1956, although less definite, indicate that borrower construction

and loan demand will continue at relatively high levels through fiscal year 1960.

(2) Borrowers at this time have approximately \$122 million of their own general funds invested in electric facilities.

(3) Borrowers estimate that they will connect new consumers at the rate of about 125,000 a year through 1960. This includes both farm and non-farm consumers.

(4) Borrowers expect to invest about one-fourth of their future loans in improving and heavying-up their distribution systems to meet increased power needs.

(5) Applications for loans for generation and transmission facilities account for almost one-third of anticipated loan needs—well in excess of the long-term trend in such loans.

(6) The systems expect to increase their borrowings to finance consumer appliances and equipment under Section 5 of the Rural Electrification Act.

The accompanying tables contain additional details.

Table 1—Total Construction Planned and Loan Applications to be Submitted for Planned Construction, Fiscal Years 1956-1960

	1956	1957	1958	1959	1960
Total Construction Planned				in millions of dollars	
Loan Applications, Total ¹	\$202	\$182	\$162	\$144	\$151
	\$156	\$151	\$123	\$113	\$ 92
<i>By purpose:</i>					
Distribution & Other ²	59	65	49	45	32
System Improvements	32	36	30	27	17
Generation	42	30	25	25	27
Transmission	18	14	15	12	13
Consumer Facilities	5	6	4	4	3

¹ These data represent applications to be submitted for loan funds to cover construction through 1960. Total applications to be submitted in 1958, 1959 and 1960 may be expected to exceed the above figures, since a part of the loan funds applied for in those years will be used for construction subsequent to 1960. In addition, borrowers are probably unable at this time to foresee all of their construction needs 5 years hence, and may have underestimated their loan requirements.

² "Distribution and other" includes distribution, substations not a part of system improvements, engineering fees, headquarters, reimbursement of general funds and miscellaneous items not included in other purposes.

Loan Survey (Continued from page 3.)

Table 2—Construction Planned By Distribution Type Borrowers, By States, Fiscal Years 1956 – 1960¹

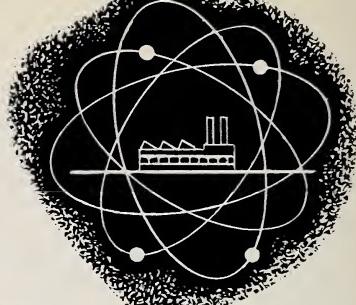
	1956 (Thous.)	1957 (Thous.)	1958 (Thous.)	1959 (Thous.)	1960 (Thous.)
UNITED STATES	\$166,207	\$149,388	\$123,526	\$109,368	\$116,445
Alabama	7,017	3,273	2,501	3,877	3,657
Arizona	2,355	1,261	1,618	1,618	1,658
Arkansas	5,740	6,323	4,890	4,151	4,217
California	210	115	110	105	105
Colorado	5,530	7,395	3,895	3,100	2,992
Connecticut	—	—	—	—	—
Delaware	307	307	142	218	218
Florida	4,408	3,263	3,216	2,702	3,537
Georgia	6,974	6,156	5,362	4,755	5,032
Idaho	974	349	326	259	1,033
Illinois	3,821	3,006	2,564	3,898	2,808
Indiana	3,484	3,334	2,779	2,469	2,455
Iowa	2,885	2,061	2,173	1,794	1,653
Kansas	3,310	2,375	2,385	1,756	1,813
Kentucky	6,586	5,253	5,531	4,880	5,237
Louisiana	2,880	2,252	2,176	2,473	2,256
Maine	116	368	75	182	46
Maryland	967	1,089	994	924	954
Massachusetts	—	—	—	—	—
Michigan	2,887	1,647	2,049	2,660	2,334
Minnesota	8,769	5,349	5,214	4,697	4,754
Mississippi	5,216	4,547	4,156	4,123	4,350
Missouri	5,151	5,083	4,755	4,422	4,601
Montana	2,373	1,846	1,369	1,573	1,580
Nebraska	4,864	3,828	2,339	2,056	2,057
Nevada	—	—	—	—	—
New Hampshire	553	507	434	415	469
New Jersey	207	78	176	94	140
New Mexico	6,081	8,023	7,041	2,716	7,274
New York	145	129	94	184	169
North Carolina	7,145	5,398	5,252	5,066	5,863
North Dakota	2,388	2,505	2,907	2,541	2,983
Ohio	4,154	2,862	4,405	2,552	3,732
Oklahoma	5,305	4,332	4,324	3,498	3,407
Oregon	900	540	881	544	589
Pennsylvania	2,677	2,359	2,263	2,315	2,193
Rhode Island	—	—	—	—	—
South Carolina	3,418	3,026	2,352	2,298	2,370
South Dakota	2,215	2,335	2,071	1,894	1,914
Tennessee	9,526	7,878	7,767	7,579	7,675
Texas	21,860	23,399	9,859	9,487	8,356
Utah	—	—	—	—	—
Vermont	139	3,434	111	111	172
Virginia	2,834	3,174	3,192	3,153	2,999
Washington	2,682	2,482	2,564	1,703	1,809
West Virginia	69	24	24	38	24
Wisconsin	2,300	1,864	1,486	1,629	1,606
Wyoming	2,517	2,061	3,068	1,564	1,860
Alaska	2,268	2,498	2,636	1,295	1,494

¹ These data indicate a decline in construction from 1956 to 1959. The decline may reflect inability of borrowers to forecast accurately all of their requirements for future years rather than an actual decrease in requirements.

Table 3—Loan Applications to be Submitted By Distribution Type
Borrowers to Cover Planned Construction, By States, Fiscal
Years 1956 – 1960¹

	1956 (Thous.)	1957 (Thous.)	1958 (Thous.)	1959 (Thous.)	1960 (Thous.)
UNITED STATES	\$123,456	\$118,164	\$89,660	\$80,697	\$59,369
Alabama	5,021	2,975	2,833	2,117	2,422
Arizona	2,138	1,998	1,224	2,110	2,044
Arkansas	5,431	7,157	3,596	2,768	1,770
California	115	105	105	105	105
Colorado	5,893	5,518	1,524	3,520	998
Connecticut	—	—	—	—	—
Delaware	—	374	—	371	—
Florida	3,340	2,396	2,201	2,995	1,482
Georgia	3,133	5,800	3,518	4,540	3,047
Idaho	607	680	240	986	241
Illinois	2,750	2,478	4,048	1,485	995
Indiana	2,444	1,489	1,578	1,090	706
Iowa	1,647	1,583	1,248	672	611
Kansas	1,569	2,577	1,094	1,088	424
Kentucky	4,965	4,655	4,759	3,677	3,309
Louisiana	1,822	2,291	1,922	1,367	1,093
Maine	—	18	135	—	—
Maryland	—	1,741	75	783	175
Massachusetts	—	—	—	—	—
Michigan	1,496	1,329	1,871	1,793	1,550
Minnesota	5,110	3,700	4,359	3,869	2,931
Mississippi	3,278	3,602	3,450	3,439	2,152
Missouri	3,904	3,893	4,037	2,450	1,394
Montana	1,693	1,787	1,137	1,180	1,220
Nebraska	3,020	883	1,521	874	66
Nevada	—	—	—	—	—
New Hampshire	168	814	—	—	—
New Jersey	—	254	—	181	—
New Mexico	5,910	6,087	3,013	3,107	6,048
New York	24	263	64	6	6
North Carolina	5,752	5,076	5,688	3,913	3,102
North Dakota	1,021	2,202	3,249	2,271	1,145
Ohio	2,308	1,920	4,516	2,450	849
Oklahoma	3,676	4,928	1,910	2,442	1,208
Oregon	461	349	1,354	195	45
Pennsylvania	2,225	1,327	924	1,073	1,599
Rhode Island	—	—	—	—	—
South Carolina	2,121	2,808	1,723	2,213	2,128
South Dakota	753	2,705	1,588	484	729
Tennessee	3,889	7,338	3,679	5,546	4,924
Texas	22,773	11,314	8,161	7,308	4,253
Utah	2,820	226	10	10	670
Vermont	3,311	40	74	—	—
Virginia	1,389	3,255	1,057	1,518	1,183
Washington	1,163	1,183	1,880	1,568	1,486
West Virginia	—	85	—	—	—
Wisconsin	1,448	1,933	1,190	1,022	396
Wyoming	1,149	2,339	2,471	809	174
Alaska	1,719	2,689	634	1,302	689

¹ Construction needs of electric distribution-type borrowers beyond 1960 were not obtained in the survey. Some of the applications to be submitted to cover construction in 1961 and succeeding years may be submitted in 1958, 1959, and 1960. Therefore, the application amounts reported in this table for 1958, 1959, and 1960 are lower by indeterminate amounts than the applications which will actually be submitted.



AEC Assures Aid In Rural Power Program

THE ATOMIC ENERGY COMMISSION has assured REA that the present working relationship between the two agencies gives REA borrowers a full opportunity to benefit from future development of the use of atomic energy to generate electric power.

This assurance is contained in a letter from Lewis L. Strauss, Chairman of the AEC, to Administrator Ancher Nelsen, reviewing the development of the AEC-REA arrangement and its implications.

In the letter, Chairman Strauss said: "We regard the liaison arrangement as providing for access of REA personnel holding 'Q' clearance to the AEC technical library; the notification of REA by AEC of meetings, demonstrations and forums of significant interest to REA; and access by cleared REA personnel to AEC installations. We will, of course, continue to make our staff available for consultation with your personnel. We rely on you to keep us fully advised concerning REA program needs and the needs of the REA borrowers in relationship to electric power requirements and possible installation of nuclear reactors on REA-financed systems."

Availability of equipment. Mr. Strauss went on to point out that, if and when nuclear reactors are designed which will produce cheaper electric energy, the AEC would anticipate that this equipment would become available to

REA borrowers and the electric companies through precisely the same channels as they now use to procure conventional equipment. In other words, both REA borrowers and electric companies would buy on the open market through the various manufacturing firms which are in this business. Under the present Act, the atomic fuel used would remain the property of the Government, and REA borrowers would have the same opportunity as any other electric utility to obtain a license for the use of the necessary fuel.

"As I see it," Mr. Strauss wrote, "the best course for REA and its borrowers in this set of circumstances, is to keep fully acquainted with the developments so that, at the proper time, action can be taken to take advantage of the situation. You have that opportunity through the present arrangements which REA has with AEC. The research findings and the developmental work on power reactors will be fully available to you. The specialists and the technical personnel of the Division of Reactor Development will assist you at any time."

Cites complexity of field. Mr. Strauss cited the complexity of the atomic energy field and his wish not to discourage any qualified group from contributing to the basic research which must be done. In this connection, he wrote:

"We share your doubt about the advisability of spending additional Federal REA funds for this pur-

pose (research) in light of the responsibilities of the Atomic Energy Commission. It would appear to be a duplication of governmental effort, and an unnecessary expense at this time."

Looks to future. Mr. Strauss added, "At some future date, as you approach the time when you may be receiving loan applications to finance reactors, you will probably wish to hire specialists or to retain a consulting engineering firm to advise you on the technical feasibility of the proposals."

In assuring Administrator Nelson of the AEC's desire to continue the already established

working relationship with REA, Mr. Strauss acknowledged the common interest of AEC and REA in the long-range possibilities of lower cost electric power from reactors.

"Your present plans and continued liaison with the reactor program under our present arrangement will make it possible for REA to represent its borrowers on this matter, to evaluate the feasibility of various potential proposals which may be made, and to make a worthwhile contribution to the entire power reactor development program," Mr. Strauss wrote.

Florida Borrower Group To Make Atom Study

LEWIS L. STRAUSS, Chairman of the Atomic Energy Commission, has announced that the Commission has approved a proposal by the Seminole Electric Cooperative, Inc., of Madison, Fla., to study the feasibility of small central station nuclear power plants. The study will be performed under the AEC's Industrial Participation Program which has been underway since 1951.

Seminole is a federation of five electric distribution cooperatives in Northcentral Florida. The member cooperatives are financed by Rural Electrification Administration loans. The REA will observe and assist in the Seminole study and will report to REA borrowers on developments affecting the REA program.

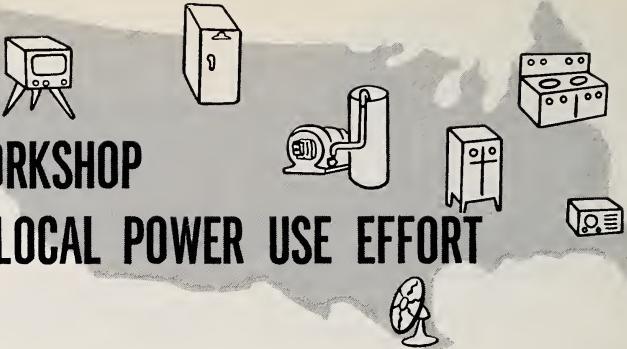
The object of the cooperative's study is to determine if a nuclear power plant can be developed to produce electricity at costs below those current in Florida and to determine the suitability of small plants with a 10,000 kilowatt ca-

pacity for use in the systems of member cooperatives. The study will run for one year and will be made at the expense of the cooperative.

The AEC will make available to the cooperative the reactor technology already developed and will provide consultation services of its personnel and of contractor personnel as required.

Seminole's member cooperatives serve one of the highest fuel-cost areas in the country. Its members are the Tri-County Electric Cooperative, Madison; Suwannee Valley Electric Cooperative, Live Oak; Central Florida Electric Cooperative, Chiefland; Sumter Electric Cooperative, Sumterville; and Withlacoochee River Electric Cooperative, Dade City.

The Fairbanks Morse Company is to be associated with Seminole during the period of this study. E. P. McLean Engineering Co. has been employed by Seminole to coordinate and direct the study.



NATIONAL WORKSHOP

Spurs LOCAL POWER USE EFFORT

FRESH SUPPORT for rural power use programs will grow out of the first National Power Use Workshop held in St. Louis recently under the sponsorship of the Inter-Industry Farm Electric Utilization Council.

More than 400 delegates from 38 states attended. From the floor they urged the Council to broaden the scope of its activities and to provide for representation of such groups as electrical farm equipment and appliance distributors and dealers, architects and builders, wiring contractors, pump and water systems manufacturers, and research and educational agencies.

By acclamation the delegates called for making the Workshop an annual "training school" and information exchange.

This first power use workshop underscored the value of inter-industry cooperation in putting over a local power use program, just as it made many in the industry aware of the tremendous potential in the farm market for electrical equipment.

Nelsen cites farm needs. In his talk opening the workshop, REA Administrator Ancher Nelsen cautioned against using the power use program "just to sell appliances."

"That may be a by-product, but the primary purpose, insofar as REA is concerned, is to attain the full benefits of electrical farming," Administrator Nelsen said. "This means that you will be promoting electrical farming as a

way to build a stronger, more productive agriculture. On this basis, you can sell electrical farming proudly, convincingly, and helpfully."

This objective was spelled out by a workshop roundtable which studied means of coordinating farm load building with other agricultural programs, or "bringing the paths of scientific agriculture and the electric industry together." The group agreed that a common objective of scientific agriculture and the electrical industry is to "help farm people to help themselves." More rapid progress can be made by closer cooperation among all groups serving farm people.

Many practical suggestions for conducting successful power use programs came out of the workshop sessions. The workshop delegates were organized in eight roundtable discussion groups, each covering one major area of an inter-industry power use program.

Dealer sales and service. This workshop group was told that rural electric cooperatives in South Dakota worked closely with appliance dealers in a plan that led to placement of 1,350 clothes dryers last fall. In this successful program, cooperatives and dealers coordinated their advertising, promotion, finance, and service programs. In turn, the cooperatives gave their members a list of operating, approved appliance dealers. Results: a flood of drier

installations, plus a good boost for cooperative loads.

Another power supplier, an electric company serving farm customers and cooperatives, took another tack to give practical assistance to local dealers. All of its employees were put to work drafting a list of prospects for electrical appliances and farm equipment. These 22,000 names led to sales of 9,400 electrical appliances.

Methods such as these must be adapted to the promotion of farm electrical productive equipment which now spells opportunity No. 1 for the farmer, the dealer and the power supplier. It was pointed out that the merchandising problem for farm churning equipment is today comparable to that prevailing 20 to 25 years ago in home appliances.

Dealer is key figure. This section also spotlighted the dealer as the key figure in load building. He must take the lead in sales, in servicing, and in financing the products sold. Many dealers, however, are not actively working the market because they do not realize the importance of electrical production equipment to the farmer and the great potential market to be tapped.

One solution offered the workshop would be the return of the enterprising specialty salesman who travels farm to farm, making

demonstrations and delivering the equipment on the spot. (See January issue of RURAL LINES, page 10, "Get Your Show on the Road.")

Adequate wiring important. Adequate wiring was identified as another prime requirement in successful load building. Several activities were suggested for use in local campaigns, such as:

- Educating power supplier employees about farmers' need of adequate wiring, and encouraging them to pass this information along to farmers at every opportunity.
- Dramatizing the re-wiring program through ads, movies, slide films and posters.
- Encouraging insurance inspection programs with a possibility that insurance companies might offer rate advantages to consumers who accept and pass re-inspection.
- Conducting schools in re-wiring for ex-servicemen and others.

Principal points developed by other roundtable groups are summarized below:

Market surveys. Surveys are valuable, but must be planned to fit local conditions. The group advised sponsors to offer prizes for returning completed appliance surveys as a means of getting

Members of the panel leading discussion on adequate wiring, left to right, are W. D. Hemker, Westinghouse Electric Corp., Harry L. Oswald, executive manager, Arkansas State Electric Co-op., and Leo O. Stoeber, Manager, Farm Electrical Service Center, Bloomington, Ill.



better response. Information obtained in surveys should be made available to dealers as a guide for stocking merchandise and directing future sales efforts. Power suppliers will find the surveys useful in their efforts to develop a balanced load.

Water systems. The best way to sell water systems is through a joint program involving the power supplier, water systems dealers, drilling contractors, and plumbers. These can lead to a "package price" and practical installment financing to reach the largest number of farmers. The group advised farm families to get a system large enough to meet anticipated water needs for at least ten years.

Education for greater sales. Training groups should be set up for each county or locality to provide education in the most effective use of electricity. Power suppliers must carry the primary responsibility for educating both the equipment distributor and the farmer on better farming methods and the complete use of electricity on the farm.

Cooperation with agricultural agencies and groups. To develop a well-rounded power use program, local groups must explore the area of common interest which exists

at the state or local level among such groups as federal and state agencies, youth groups, local civic groups, farm organizations, boards of health, the state bankers association and other organizations. Further research in the application of electricity to farming, and broader dissemination of existing scientific knowledge was recommended.

Advertising and publicity. National advertising and sales promotion should be localized insofar as possible, and coordinated with efforts of interested groups, as practiced by the electric range and water systems industries. The group urged power suppliers to take a more active part in 4-H organizations, particularly in training leaders and helping to meet the costs of such groups. The group called for preparation of text books covering the management and application of equipment and devices now available for farm use.

Local power use programs. The group summarized the types of organizations and activities used in 12 typical states, but made no specific recommendation as to the one best method for all situations. It did recommend that the Council provide a clearing house for the exchange of ideas between state councils.



Sam J. Hord, standing, manager, Southern Kentucky Rural Electric Co-op, leads panel discussion on water systems. Other panel members are Russ Lewis, seated left, Fairbanks Morse & Co., Chicago, and seated right, C. F. Walters, F. E. Myers Bro. Co., Ashland, Ohio.

REA-20 YEARS OLD

THE REA program is about to mark its 20th anniversary.

On May 11, 1935—just 20 years ago next month—REA was brought into being under an executive order. A little more than one year later, on May 20, 1936, the program was given congressional status through enactment of the Rural Electrification Act.

Now, 20 years later, special ceremonies are being planned beginning May 11, 1955 and continuing through the year to a climax on May 20, 1956. Beginning these ceremonies is the annual celebration of the REA personnel on May 11. A program of speakers during the day and a social event in the evening is planned. The evening event has been held every year since the agency came into being.

Added to the REA celebrations, this year it is expected that REA borrowers throughout the United States will join in the 20th anniversary observance. Borrowers have already announced plans for making their co-op and state annual meetings feature the anniversary.

No plans have yet been announced for the big climax to the celebration May 20, 1956, marking the date when the cooperative rural electrification program was first enacted into law.

"These have been 20 remarkable years of progress in electrifying rural America," Administrator Ancher Nelsen said, "and I am sure that hundreds of thousands of farmers and their families will join during the year in commemorating this anniversary.

"This is a time when old-timers in the program can recall how their efforts helped get light and power out to their farms. This is a time when all of us who played a part in the program development can take pride in the rapid growth that has been made through the years.

"The most important aspect of this anniversary, however, is that we now have available to us the blessing of electric power. We can now dedicate ourselves to finding more new ways to put electric power to work to save time, money and labor so that we might have an even brighter future ahead of us."

Power Co-op Seeks Integration With Commercial Utility

The board of the Arkansas Electric Co-op, which is seeking to build a steam generating plant at Ozark, Ark., voted unanimously January 3 to ask integration of its proposed facilities with commercial utilities in the area. Arkansas Electric Co-op is composed

of three distribution co-ops—Arkansas Valley, Carroll and Ozark.

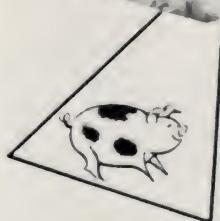
Goal of the group is a power interchange agreement similar to that negotiated with the Southwestern Power Administration some months ago.

(From "Rural Arkansas.")



What's New

Infrared lamps . . .
their use in brooding pigs



Leaflet No. 381

UNITED STATES DEPARTMENT OF AGRICULTURE

To meet the demand from farmers for specific information on various applications of electricity to their chores, the U. S. Department of Agriculture is issuing a new series of leaflets. Each leaflet in the series will be

keyed to the slogan, "Live better, farm better with electricity."

The first two in the series have been printed. They are "Infrared Lamps . . . Their Use in Brooding Pigs" (shown here) and "Lights for More Winter Eggs." (See De-

New In Print



ember 1954 issue of RURAL LINES.) Other titles will be announced later.

Prepared by engineers in the Agricultural Research Service, these leaflets are fact-packed, concise, and easy to read. They are illustrated to show proper installations.

The 4-page brochure shown on the adjacent page offers directions for use in infrared lamps in pig brooding, and cost figures showing that they more than pay for themselves. It gives general instructions for constructing brooding equipment, materials needed, and explains safety practices to follow.

This is the type of bulletin you may want to enclose with meter cards or newsletters to your members to give a boost to your power use program.

Your members may get single copies of Leaflet No. 381 without charge by writing to the Office of Information, U. S. Department of Agriculture, Washington 25, D. C. An REA borrower can get a limited supply by writing to the same address. However, quantity orders should be sent to the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. The sale price is 5 cents a copy, with a 25

percent discount for 100 or more copies.

"Your Electric Farm Shop—Plan It—Build It—Use It" is the title of Idaho Bulletin 202. It offers construction plans and illustrations of farm shops and equipment, including type of shop, size, location, construction, wiring, lighting, heating and equipment arrangement. Special consideration is given to providing space for welding, metal and carpenter work, grinding, forging, battery charging, and the air compressor.

Written by William H. Knight and Owen K. Brown, the bulletin is published by the Agricultural Extension Service, University of Idaho, Moscow, Idaho.

The **"Residential Wiring Handbook"** is a guide to electrical planning for new and modernized homes. It presents minimum installations for household wiring to meet present and anticipated future needs. Its design standards are aimed at preventing electrical obsolescence.

Copies are available from the Industry Committee on Interior Wiring Design, Room 2650, 420 Lexington Avenue, New York 17, N. Y., for 25 cents a copy.



SCHOOL FOR DIRECTORS

• • • Pennsylvania Boards Meet to Study Rural Electric Problems

"**S**OME DIRECTORS aren't sure of their duties. Running an electric co-op is a job that calls for broad understanding of the rural electrification program. Through education we hope to make the director's work easier and more effective."

So spoke Rufus Himes, president of the Jefferson Electric Co-operative, Brookville, Pa., at the recent one-day conference of directors of Pennsylvania's 13 rural electric cooperatives.

Meeting at Bedford, the group had come together to learn about their duties and the "do's" and "don'ts" of the big job they have taken on. The well-attended session was called by the Pennsylvania Electric Cooperative Association to help directors do a better job of serving their systems.

"Of course, you can't lay down a job description to fit all directors. But the directors themselves can agree on their general responsibilities as board members," Mr. Himes said.

Mr. Himes, for 10 years head of his board, is credited with originating the idea for the Pennsylvania conference and putting it

into action. He believes that most directors need more training.

One of the principal speakers was J. K. Stern, president of the American Institute of Cooperation, who spoke on "A Director's Responsibilities to the Members." Here are some of the things he said directors should do:

1. Know co-op principles and practices;
2. Be alert to what members want;
3. Plan interesting and instructive membership meetings;
4. Work with other directors to see that co-op does not become a one-man organization;
5. Check up regularly on effectiveness of policies and the co-op's financial position; and
6. Keep members informed on all phases of the co-op's activities.

Directors' legal responsibilities were explained by John Y. Scott, attorney for the Pennsylvania statewide association. He asked directors: "Do you understand the state cooperative law and articles of incorporation and bylaws of your co-op? Do you know that the functions and powers of the co-op can be exercised only at a formal director's meeting? That it is only by board action in such meet-

ings that directors can make a binding contract or agreement? Do you know that if you are present at a meeting at which action is taken exceeding the powers conferred in the co-op's articles and bylaws, or other wrongful act committed, you will be held personally or jointly responsible with other directors present—UNLESS your negative vote is entered in the minutes?"

In addition to their briefing on legal and community responsibilities, the directors were also given information on taxation, public relations, and member and manager relationships.

Other speakers included John Gauss, extension agricultural specialist, and Dr. C. A. Becker, professor of business management, from the Pennsylvania State College, who helped set up the meeting; and George Myers of the Pennsylvania Association of Farmer Cooperatives.

"The Bedford conference paid off for Pennsylvania directors," Mr. Himes said. "We gave them a pretty good dose. But they liked it and already have asked for another job-training get-together. You know you've got to understand your job before you can carry it out."

MINNKOTA ON TV

Minnkota Power Cooperative, Grand Forks, N. Dak., is sponsoring a series of television programs arranged in the interest of its 10 member systems.

The series has five major objectives according to Kenneth Twedten, the Cooperative's public information director. They are: 1, To increase electric consumption; 2, to sell farmers' products; 3, to tell the story of rural electrification; 4, to help farmers do a better job of farming; and 5, to entertain.

Five 15-minute programs weekly were scheduled over KWJB-TV with studios in Valley City and Fargo, N. Dak. This series replaces Minnkota's radio programs carried 5 times weekly over 3 Grand Forks and Fargo stations the last 2 years.

Mr. Twedten says, "We believe television gives us a real opportunity to picture some of the things we want to say about our member co-ops and their members.

"This year's programs were planned around activities and operations of each system. In each case, we aimed to portray the borrower's origin and development, to tell about the agriculture and crops, relate interesting facts about its members and generally report the good job being done in rural electrification.

"One of our aims, of course, is to show the variety of high grade products our farmers are turning out. And we believe we can help farmers by illustrating how rural electrification and modern farm practices can make farming easier and more profitable."

Merchandising slogans flashed on the screen set the pattern for each show, and hill billy music provides a lively, homespun flavor to the programs.

Rural youth figures in Minnkota's television plans too. A registered purebred Holstein calf was the prize for the first place winner of a television-conducted essay contest—"What Rural Electrification Has Meant to Our Farm Family."

THE LINEMAN



North Carolina Paper Outlines Safety Program

"SAFETY—On the Pole-Top" is the subject of a special article in a recent issue of the "Carolina Farmer," official publication of the Tarheel Electric Membership Corporation. The following excerpt gives a good idea of what state associations are doing in the job training and safety field:

"For a number of years the co-ops in North Carolina have jointly sponsored a highly effective Safety and Job Training Program, designed to make all linemen safety-conscious.

"The heart of this program is the monthly visit of the safety instructor to the co-op. He holds meetings with all of the outside personnel, demonstrating safe practices with movies, slides, charts and other visual aids. The crewmen join in these discussions.

"The instructor presents case histories of actual accidents, using diagrams to show how they happened. Then he points out how they could have been avoided. When a lineman later finds himself in a similar circumstance, the chances are good that he'll remember what to do.

"When the meeting is over, the instructor goes out with the men to observe their work habits. He points out practices that are potentially dangerous, demonstrates the safe way to do the same thing.

"The instructors also teach the men what to do when an accident occurs—how to apply first aid in a situation where minutes may determine whether a man lives.

"It is the safety instructor who teaches linemen the technique of

applying respiration on top of a pole. This practice is credited with saving many lives since it was developed a few years ago. And it is the instructor who proves by case histories that artificial respiration should go on—and on—and on, until a doctor is absolutely sure that there is no chance of saving the life.

"The success of the safety program depends to a large degree on the competence and personality of the instructor. Linemen are traditionally of an independent nature—they take no advice from men they do not respect.

"The instructor, then, must be a master psychologist as well as an expert in safety. He must know his subject, and have the knack of putting it across."

Line Hazards

Luther Farmer, manager, Jackson County Rural Electric Cooperative with headquarters at Mc-Kee, Ky., had this to say about job training and safety in a recent issue of his newsletter:

"Not all the dangers of operating an electric system are in the electricity itself. In common with many other occupations there are the hazards of falls, cuts, bruises, water, storms, traffic, wind, strains and dog and snake bites.

"For the field men, engineers, material men, etc., the co-op maintains a continuous training program. A monthly safety meeting is held with a program lasting from one to three hours. Regular

work time is taken for these meetings, however we have never felt that this was in the least a waste of time. In stimulating the men to think of safe ways of doing a job they advise better ways and tend to be more alert on the job.

"Careful procedures of work are discussed, safety films are shown, and lectures or demonstrations are given. Then first aid is taught and drills are given in artificial respiration.

"These monthly meetings are conducted by either one of two safety directors, hired on a state-wide basis by 23 co-ops.

"However safety does not begin or end with the safety meeting. Each foreman is instilled with the responsibility he has toward every man working under his direction. Each workman, lineman, groundman, or laborer is alerted to his responsibility to those with whom he works."



DALLAS S. RUSSELL of Corning, Iowa, was honored recently by presentation of a plaque from the Adams County Electric Cooperative, commemorating his 18 years of service on that cooperative's board of directors.

Mr. Russell was a member of the group which first met in Corning 20 years ago this month for organization purposes, and was instrumental in the formation of the Adams cooperative. He served continuously as treasurer from 1936 to 1954.

He not only believes in, and works for, rural electrification in southwestern Iowa, but has practiced what he preached in the practical application of electricity in his own farming operations. His farm has an electric-powered feed handling system, elevator, milking machines, and other equipment including power tools.

"I contributed a lot of free time and mileage during the time I served as director," Russell stated in accepting the plaque, "and I've received in return a lot of per-



Mr. Dallas S. Russell

sonal pleasure and satisfaction which money couldn't buy. Just look at the modern conveniences we farmers now have . . . why it's better than moving to town."

He normally farms about 1,000 acres in Adams county, owning the 480-acre home farm and renting the balance. Today, at 62 years of age, he is in poor health and is semi-retired. Two sons do the active farm work. Mr. Russell has lived on the same farm for 40 years, since he and the former Clara Goodvin of Carbon, Iowa, were married in 1915.

Other members of the original organizing board, believed by the Adams co-op to be the second earliest in Iowa, included: J. E. Hunt, Bert Kernen, W. O. Thomas, H. M. Bush, Walter Arnold, Lloyd Peterson, Harold H. Neill, and Earl Perry.



For the farmer the telephone is more than a convenience—it is a business tool. He uses it to order repairs when machinery breaks down, to buy or sell at the most favorable price, and to get help from his "vet." It can make the difference between profit and loss.

COLLEGE SPEEDS DIAL SERVICE

WHEN THE Cherokee Telephone Membership Corp., Banner Elk, N. C., cut over to modern dial service, the folks in the area, particularly the staff and students at the Lees-McRae College, tended to be a bit nostalgic.

And with good reason. It was in the early 1900's when party lines first were stretched across this Appalachian area to provide service to nearby communities. Some two decades later the College received service for itself and for Grace Hospital by agreeing to provide a full-time operator at the switchboard. Then only two years ago the College sold its telephone rights to the Cherokee Telephone Membership Corp., financed by REA.

With installation of a completely automatic dial system, the College takes sentimental pride in its part in bringing the service to the mountain community. Already plans are underway to place one of the crank telephones in the college museum as an heirloom of the past—a symbol of the "before" in a changing mountain economy.



Here is the mass of wires leading to the old exchange office before cutover to automatic dial system by Cherokee.



Dr. Fletcher Nelson, president of Lees-McRae College, says that by being freed of the responsibility of providing telephone service, the college can now explore other fields. Particular interest is in the direction of extended adult education.

Oldtimers in the rural electrification program in the area can remember, too, that the college developed electric power for itself as early as 1910 and furnished it to the townspeople until 1947. At that time it sold its power plant to the Mountain Electric Cooperative, Mountain City, Tenn.

B. L. Baucom, former business manager for the College is manager of the Cherokee Telephone Membership Corp., with offices in Banner Elk. The president is A. H. McQueen, Mountain City, Tenn.; acting vice president, W. Y. Hill, Shouns, Tenn.; secretary-treasurer, Douglas Von Cannon of Banner Elk.

New Financial Report Spotlights Your Progress

TELEPHONE borrowers recently received copies of REA Form 479—the official designation of a quarterly financial and statistical report form just revised by REA.

This form includes suggestions made by borrowers and represents an effort to bring together all essential items of operation for a borrower to use in analyzing its own operations. REA submitted preliminary copies of its proposed report form as a trial balloon to 4 systems—2 companies and 2 co-operatives. Their suggestions were incorporated in the new form.

The operating report was revised to give REA a better picture of borrowers' operation, and to help telephone managements get a better picture of their own situations than they were previously able to get.

FCC System. Most REA borrowers are using Federal Communications Commission uniform system of accounts as prescribed by their State regulatory body. However, some State Commissions regulating operations of telephone systems have written their own system of accounts. REA's new quarterly form follows the FCC Account Manual, but simplifies the report to further help those borrowers operating under specific requirements of their State commissions.

The frank comments from managers were helpful to REA. When W. R. Bacon, manager of the Southcentral Rural Telephone Co-operative Corp., Glasgow, Ky.,

was asked for comments on the preliminary form, he wrote, "This report form does not represent the true picture of station growth for operating companies."

He attached to his letter a sample station data form which he had been using in his system operations, and REA took his suggestions into account in its revised form.

Station data included. As a result, the quarterly report was revised to include station data by exchanges. While agreeing with Mr. Bacon's position that the growth of a system can only be determined on an exchange basis, REA also felt that this data should be broken down by classes of service in each exchange.

Another manager, Ross K. Vernon of the Mutual Telephone Co., Sioux Center, Iowa, offered helpful suggestions, and also submitted samples of reports in use on his system.

G. J. Stover, president of the Skagit Valley Telephone Co., Mount Vernon, Wash., represented the board's view of these forms. He felt that an expanded form to include an analysis of a telephone plant in service and depreciation reserve analysis would give a better picture, and fewer errors would appear if a separate report were made for each period.

Help in evaluation. Managers will find the new form beneficial in reporting to their boards of directors since it provides them with a means for evaluating their operations and the growth of their

systems. It not only gives a dollar picture of fluctuations in revenues and expenses, it also provides the opportunity for comparing one period's record with that of previous similar periods.

The operating statement also enables management to compare the goals set in the budget with actual accomplishment. It affords the opportunity to study trends and to revise operations to improve conditions if that is indicated.

Speaking of budgets, the operating report will come in handy to managers in setting up their budgets, particularly in preparing a "cash revenue and application of funds" statement.

REA will supply borrowers with copies of the forms for the quarterly reports. However, REA will continue to accept monthly operating statements supplying essentially the same information from those borrowers which have approval from REA.

Loan Requirements

REA Official Explains Limitations Affecting Telephone Funds

Owners and managers of telephone companies and cooperatives often ask which loan requirements are set up by REA and can be modified by this agency, and which requirements are established by the Rural Electrification Act of 1936 as Amended.

In a recent speech, Everett Weitzell, Chief of Telephone Operations and Loan Division, made this distinction clear.

"There are five principal limitations which the Congress placed in this Act:

"First, the loan must be made to finance the extension and improvement of rural telephone service. Service to towns of over 1500 population, which is the dividing line established by the Congress between rural and urban, can be made only on the basis of a finding that the financing of service within such towns is essential to the improvement and extension of adequate service to surrounding rural areas.

"Second, each and every REA telephone loan must involve the extension and improvement of service. No more than 40% of any loan may be for refinancing existing indebtedness regardless of whether such indebtedness is secured or unsecured.

"Third, Section 202 of Title II of the Act subordinates the activities of REA in the telephone field to the authority of state commissions, boards, or other regulatory bodies established by state law.

"Fourth, the Administrator must determine that loans made by him under this authority will not result in the duplication of lines and facilities that are already providing reasonably adequate telephone service, unless territorial boundaries are established by state authority.

"Fifth, the Administrator must find that the security for the loan is adequate and that the loan will be repaid within the time agreed."

TELEPHONE BRINGS CIVILIZATION

"CIVILIZATION, which finally comes to all places, came last week to Star Point Fishing Camp, Byrdstown, Tenn.

"After years of toil, sweat, labor and super-human effort, this last uncivilized place, this stepping off place of the world, finally got a telephone."

That letter was received by Mrs. Gwen Mochow, owner of the Star Point Fishing Camp, after she sent postal cards to patrons notifying them of the new telephone installation at the camp.

The camp is only one of the 1300 subscribers now being served by the Twin Lakes Telephone Co-operative Corp., Gainesboro, Tenn. According to Manager Frank Richmond, Mrs. Mochow was of valuable assistance in the commercial development of the area served by Twin Lakes. The line serving her camp is in a part of Pickett County where telephone poles have never been seen before.

The system has completed construction of 500 miles of new pole line in 2 of the 5 counties in its service area. The management has set as its goal the completion of another 500 miles of line by the end of 1955.

Mr. Richmond estimates that on completion of their facilities

the system will be serving around 4,500 subscribers with modern dial service from 10 exchanges.



Twin Lakes lineman rides his "buggy" on cable crossing Cumberland River as line truck is ferried over.

Montana's First REA-Financed Telephone

Margaret Hass, secretary of the N. E. Montana Telephone Cooperative Association, Scobey, Mont., writes: "The first REA phone service in Montana was cut-over at Reserve at a celebration attended by many subscribers and friends of the co-op. . . . The central office building is finished in Scobey. . . . It is hoped that . . . the stations at Dagmar and Westby can soon be opened. As soon as cable is received most of

the stations will be cut over in rapid succession. . . . Present directors are: George Johnson, Reserve, president; Marion La Motte, Scobey, treasurer; Margaret Hass, Outlook, secretary; Francis Tarum, Richland, vice president; and Oscar Olsen, McCabe; Richard Veis, Scobey; Reuben Baerg, Lustre; and William Herman, Westby, who represents Divide county of North Dakota."

VERMONT GETS ITS FIRST LOAN

The first allocation of telephone loan funds in Vermont was made to the Topsham Telephone Company, East Corinth, in February 1955. The loan for \$146,000 was made to improve and extend rural service in Orange County.

The Topsham Company is presently furnishing magneto service to 257 subscribers over 92 miles of line and will use the REA loan to construct a practically new plant. About 107 miles of new line will be added and a new dial central office built at East Corinth, replacing the magneto facilities.

These changes will make it possible for the borrower to furnish completely automatic dial service to the existing subscribers and to bring telephone service for the first time to 91 rural families in the community. The system, when complete, will consist of 113 miles of line.

Eugene B. Andross is president of the Topsham Telephone Company.

With the addition of Vermont to the list, borrowers in a total of 43 states and Alaska now have received REA telephone loans.

Arkansas Gets New Telephones

Several hundred members of Southwest Arkansas Telephone Cooperative, Hope, Ark., were the first farm families in the State to receive telephone service under the REA loan program when they started using their new dial telephones on December 6, 1954.

Since that time, completion of the cutover has brought service to a total of 980 families served from exchanges at Garland City, Fouke, Trigg and Doddridge.

A recent loan approved for Southwest will provide funds to add 600 members in Hempstead and Columbia Counties, with exchanges at Columbus, Ozan and Emerson.

Southwest bought the lines of the Garland-Fouke Telephone Co. and rehabilitated the facilities to provide completely automatic dial service.

(Briefed from "Rural Arkansas.")

South Dakota Construction

With 30 miles of poles already set before cold weather, the Deuel County Telephone Cooperative, Clear Lake, S. Dak., will soon start outside work again to speed up the day when it can actually give telephone service to its members.

The cooperative will serve the towns of Clear Lake, Altamont, Bemis and Goodwin and a large part of Deuel County. The co-op will build automatic

dial exchanges at Clear Lake and Goodwin, and will be able to serve 800 subscribers with its present loan funds. Two contracts have already been let, one for outside plant and one for the central office equipment.

Newman Jacobson is manager and Karl Fromm is president of the board of directors.

(Taken from the "South Dakota High-Liner.")

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LOANS APPROVED JANUARY 22, 1955
THROUGH FEBRUARY 18, 1955

ELECTRIFICATION

\$ 90,000	Riceland Electric Co-op., Stuttgart, Ark.	385,000	Hart County Electric Membership Corp., Hartwell, Ga.
500,000	Limestone County Electric Cooperative, Mart, Texas	50,000	Peace River Valley Electric Membership Corp., Wauchula, Fla.
490,000	Prince William Electric Co-op., Manassas, Va.	66,000	Oneida-Madison Electric Cooperative, Bouckville, N. Y.
50,000	Roseau Electric Co-op., Roseau, Minn.	325,000	LaCreek Electric Association, Martin, S.D.
550,000	Town of Dickson, Dickson, Tenn.	40,000	Choctaw Electric Cooperative, Hugo, Okla.
60,000	Mason County Public Utility District No. 1, Shelton, Wash.	740,000	Nueces Electric Co-op., Robstown, Texas
1,225,000	Jackson County Rural Electric Cooperative Corp., McKee, Ky.	360,000	Paulding-Putnam Electric Cooperative, Paulding, Ohio
935,000	Taylor Electric Co-op., Merkel, Texas	885,000	Crow Wing Cooperative Power and Light Co., Brainerd, Minn.
50,000	Randolph Electric Membership Corp., Asheboro, N. C.	25,000	Buena Vista County Rural Electric Co-op., Storm Lake, Iowa
50,000	Haywood Electric Membership Corp., Waynesville, N. C.	910,000	Flint Electric Membership Corp., Reynolds, Ga.
190,000	P R & W Electric Cooperative Assn., Wamego, Kansas		

TELEPHONE

\$ 347,000	Thorp Telephone Co., Thorp, Wis.
314,000	Sand Hills Rural Telephone Cooperative, Jefferson, S. C.
134,000	Farragut Telephone Co., Farragut, Iowa
465,000	The Sterling Telephone Co., Sterling, Kansas
204,000	St. Stephen Telephone Co., St. Stephen, S. C.

146,000	Topsham Telephone Co., East Corinth, Vt.
353,000	Hardy Telephone Co., Moorefield, W. Va.
35,000	Mason County Telephone Co., Maysville, Ky.
137,000	Richmond Dial, Inc., Richmond, Kansas